Chapter V

THE ORGANIZATION OF ARMY AVIATION

Following World War II, Army aviation, which up to that time had consisted only of organic air observation for field artillery, was expanded to various other arms. In some cases, as in separate battalions and regiments, the aircraft and men were made organic to the unit. In the infantry and armored divisions, all aircraft and crews serving units other than artillery were included in the division headquarters company. From 1945 to 1950, the allotment of Army aircraft changed very little. With the outbreak of war in Korea, the expansion of aviation organization at every level of command, from the Army Field Forces down to the smallest medical service helicopter ambulance detachment, occurred very rapidly, causing constant study, review, and change in the allotment of equipment and personnel.

Army Field Forces, the General Staff, and the Transportation Corps worked closely in the planning and monitoring of the activation, training, and employment of the experimental cargo helicopter companies. This work increased in importance with the adoption of the twelve cargo helicopter battalion program. The Transportation Corps assumed similar functions pertaining to the Army aircraft maintenance units transferred to it from the Ordnance Corps.

Army Field Forces

The Chief of Army Field Forces had overall responsibility for the organization and training of Army aviation as it pertained to the Army in the field. Early in 1950, the G-3 Section of Army Field Forces was the operating agency having general staff responsibility for training, with the G-4 Section responsible for those matters pertaining to logistics. Within the G-3 Section, responsibility for aviation training at the end of calendar year 1950 was divided between the Air and Airborne Branch of the Joint Training Maneuvers and Special Projects Division and the Army Aviation Branch of the Combined Arms Training Division.

Virtually no change occurred in the aviation organization within Army Field Forces from 1950 to 1952. On 20 March 1952, a revised version of Army Regulations 95-5, governing Army aviation, was issued. Through the provisions of this regulation the Chief of Army Field Forces exercised general direction, supervision, and coordination over matters pertaining to the training of Army aviation personnel, Army Aviation Sections, and Army aviation units utilized by the

Army in the field. He also was responsible for developing and preparing doctrine pertaining to the tactical and technical employment of Army Aviation Sections and units utilized by the Army in the field and for the materiel and equipment necessary in the performance of their missions.

The Chief of Army Field Forces conducted inspections of Army aviation activities and units, keeping the Chief of Staff of the Army informed of the state of training and operational readiness of units. Among his technical responsibilities were the preparation, coodination, and revision of flight regulations for Army aircraft operated in the continental limits of the United States. He also prepared, coordinated, and revised regulations necessary for the control of Army aircraft used in disaster operations.

In the area of research and development, the Chief of Army Field Forces prepared and coordinated proposed military characteristics for Army aircraft and related items of equipment used in a type field Army. He initiated qualitative requirements for items of Army aviation equipment for which units in the Army in the field had a primary need and directed and controlled appropriate Army Field Forces agencies to ensure continued research, development, and testing of this equipment from the point of view of user interest.[1]

To carry out these many responsibilities, the component elements of the Office of the Chief of Army Field Forces were delegated specific areas of interest. The Deputy Chief of Army Field Forces for Combat Developments had the responsibility for the overall supervision and coordination of the Army aviation program in OCAFF. He coordinated OCAFF efforts in research and development of both doctrine and materiel for the Army in the field. Included on his executive staff was a senior officer charged with monitorship of the program. The G-1, Personnel and Administration, advised the Chief of Army Field Forces and furnished guidance to the staff on all personnel matters pertaining to Army aviation, determined the spaces, and reviewed personnel requirements for Army aviation personnel in boards and schools. The G-2, Intelligence, advised the Chief of Army Field Forces and furnished guidance to the staff on matters pertaining to the employment of aviation in intelligence activities.

The G-3 Training provided advice and guidance on all matters pertaining to the organization, composition, and training of Army aviation sections and units utilized by the Army in the field, developed and supervised a training program for Army aviation personnel, conducted inspections of Army aviation activities and units, and determined the state of training and operational readiness of Army aviation units. The G-3 Section also developed and prepared doctrine pertaining to the tactical employment of Army aviation sections and units utilized by the Army in the field and for the materiel and equipment necessary in the performance of their missions. It prepared, coordinated, and revised flight regulations for Army aircraft operating in the United States and in disaster operations. In addition, G-3 developed and stated military requirements for items of Army aviation equipment for units of the Army in the field, evaluated the impact of new scientific achievements on development of equipment for field units of the Army, and reviewed all Army aircraft accidents involving fatalities or those which would reflect inadequacies of training, doctrines, regulations, or equipment.

Within the G-3 Section, the Army Aviation Branch, Combined Arms Training Division, initiated and coordinated actions on all general training matters and specifically on matters pertaining to Army aviation. The division reviewed aviation accident reports, recommended safety doctrine, and coordinated with the G-3 Schools Division on matters pertaining to aviation training of Army personnel. This division also coordinated with the Organization and Equipment Division on the preparation and modification of tables of organization and equipment, tables of allowances, and tables of distribution for Army aviation units.

The Schools Division of G-3 was responsible for courses, curricula, and instruction for the Army Aviation School as well as for recommending policy and administrative quotas governing attendance at the school. The Joint Training Division of G-3 determined the requirements for modification of existing materiel required for Army aviation operations and the development of doctrine and techniques. Additional duties included analysis of accident reports and the subsequent recommendations concerning aviation safety doctrine.

During fiscal year 1954, the G-3 Joint Training Division assumed from the Combined Arms Training Division the responsibility for the determination of requirements for the modification of existing materiel required for Army aviation. It also revised existing organization, doctrine, and techniques pertaining to aviation. In addition, the Joint Training Division determined requirements for the development of new materiel for aviation operations.

The Combat Developments Division of G-3, organized effective 1 October 1952, supervised the G-3 portion of the combat developments program and specifically was responsible for materiel requirements and development of organization and doctrine. Its staff included an Army aviator for full time work on aviation matters.

The G-4 Logistics advised the Chief of Army Field Forces and furnished guidance to the OCAFF staff on all matters pertaining to logistical support of research and development and operational requirements of Army aviation. He developed and prepared doctrine pertaining to the logistical employment of Army aviation units utilized by the Army in the field. He also provided functional guidance to the staff on matters pertaining to logistical activities as they related to the training of Army aviation personnel, sections, and units.

The Air and Airborne Division, one of the nine operating divisions of the Development and Test Section, was responsible for development of military characteristics and for coordination and control of appropriate Army Field Forces agencies engaged in user tests of aircraft and allied equipment. The Transportation Section of the Special Staff included an Army aviator to advise the section chief and to take action on aviation matters.[2]

Army Field Forces Board No. 1

In the latter part of 1945, Army Ground Forces consolidated the former branch boards into four Army Ground Forces Boards under the supervision of its Developments Section. Each board was assigned definite responsibilities for equipment testing in accordance with designated types and classes. Army Field Forces Board No. 1 at Fort Bragg eventually became responsible for tests relating to Army aviation, airborne items, communications and electronics, and field

artillery. The Army Aviation Service Test Section of the board was responsible for user service tests, preparation of military characteristics, and conduct of studies and investigations associated with fixed and rotary wing aircraft.

The conduct of user service tests to ensure that development equipment met the requirements established for it and that the equipment would do the required job called for broad knowledge and thorough appreciation of the problems of the field forces as well as constant coordination and cooperation with other agencies. To ensure that test plans were complete and thorough from the user viewpoint, continual coordination and liaison was maintained with all Army Field Forces schools, certain tactical units, and other interested agencies in the conduct of service tests on equipment. Whenever possible, tests and demonstrations took place at stations other than Fort Bragg so that opinions and recommendations of other agencies could be secured.

A similar procedure was followed in the preparation of military characteristics and in the conduct of studies and investigations. In the preparation of military characteristics for the development of new items of equipment, the board had to know the needs of the field forces. Moreover, the capabilities of science and industry had to be considered. Toward this end, liaison was maintained with the technical services and with the civilian research and development agencies.[3]

The rapid improvement of Army aircraft in late 1950 led Army Field Forces Board No. 1 to suggest that the existing equipment tables might be out of balance as to numbers and types of aircraft assigned. The board therefore recommended to the Chief of Army Field Forces that it reevaluate the need for aircraft in the various Army units and revise the bases of issue. On 21 November 1950, Army Field Forces concurred in this recommendation. The study directed by OCAFF was to reevaluate the needs for Army aircraft in the various types of units and headquarters in order to determine types and quantities recommended for future inclusion in tables of organization and equipment. The study was to include a reevaluation of existing allotments as well as desirable new assignments, to include special organizations.[4]

Army Field Forces Board No. 1 circulated a questionnaire late in 1950 to interested agencies for comment, and the entire scope of the study was discussed at an Army Aviation Conference, held 8-10 January 1951, and attended by representatives of the Department of the Army, Army Field Forces, the CONUS armies, the principal schools, and the board. The conclusions and recommendations of the board represented the consensus of both the questionnaires and the conference. Although the board report reviewed the types of aircraft available or likely to be available—both rotary and fixed wing—its most significant findings were in the area of organization.

The board believed that it would be uneconomical to decentralize Army aviation, a change which would require more equipment and personnel than a centralized organization would need for the same job. The board also felt that decentralized organization was inefficient because it would not provide adequate technical command supervision over training, maintenance, and operations; could not afford to provide all the technical skills needed; would make it difficult to

take up the slack in maintenance when mechanics were in short supply; and would not conform to common use of necessary base field equipment.

The board concluded that the formation of an Army Aviation Corps was desirable in order to provide an adequate structure for the proper management of a highly technical Army, ensure proper standards of training, provide qualified supervision, promote flight safety, provide a career outlook for officers comparable to that in other arms and services, and provide a suitable agency for planning and for monitoring new developments. Such a corps also would furnish an agency for making recommendations regarding expenditure of the large sums of money then budgeted for Army aviation. The proposed Army Aviation Corps would be organized to include aviators and mechanics of the organic air sections, the field maintenance units then designated as ordnance light aircraft maintenance companies, the transportation helicopter companies, and any aviation elements which might be added in the future.

Finally, the board recommended that Army aviation in each division be organized into a single unit of squadron type and that a similar unit be provided in each of the corps and army headquarters. The assignment of organic Army aircraft to nondivisional organizations was to be continued, but these were to be limited to the 2-place observer aircraft. No action was taken on these recommendations at this time.[5]

Staff Organization

A rapid expansion of Army aviation occurred following the implementation of the Materiel Requirements Review Panel study and the adoption of the Army-Air Force Memorandum of Understanding in November 1952. The Department of the Army directed Army Field Forces to conduct a study to determine the most suitable aviation organization on army, corps, and division level. The OCAFF study, initiated in March 1953, was conducted in coordination with the Infantry School, the Artillery School, the Command and General Staff College, and the Chief of Transportation.

In its approach to the problem of suitable aviation organization, the OCAFF group examined the command and staff functions involved in the administration and control of Army aviation in order to determine their appropriate place in the organizational structure of the Army. In the opinion of the study group, consolidation of existing personnel to carry out Army aviation functions in the division headquarters would bring about the formation of a suitable staff section. At corps and army headquarters, those people could be integrated into existing staff agencies.

The study group pointed out the advantages accruing from the placement of staff responsibility in a single agency. A single agency would handle all functions and would integrate all the many facets of the program then being separately handled by several agencies. About half of the pertinent functions relating to Army aviation had already been assigned to a single agency, the Transportation Corps, while others were being loosely monitored on an uncoordinated basis by many general and special staff officers as the problem arose. This arrangement prohibited any real integrity or responsibility for the program. For this reason, and because of the rapid growth of the complexity of operations, the study group felt that all elements should be drawn into a

single responsible agency that would provide technical supervision over aviation training, operations, supply, and maintenance. The Transportation Corps seemed to be the most logical agency in which to centralize these responsibilities.

At the time of the study, transportation activities in a division were being performed by Transportation Corps officers and enlisted men assigned to the G-4 section, an unsound arrangement that required the section to perform the duties of a special staff section at the expense of its own function. In addition to responsibilities regarding rail and highway movement, the new Army helicopter activities had been superimposed upon the division transportation officer along with all logistical functions of all Army aviation. The study group recommended that the division transportation officer be assigned to the special staff. Existing personnel scattered among the various staff sections would then be consolidated in a suitable staff section to carry out aviation functions at division headquarters. The need for centralized maintenance, supply, and logistical support for divisional aviation had long been recognized. The requirements for pilots to be well trained in their basic arm or service and to be under the command and control of their individual organizational commanders could be met by leaving the pilots assigned to units and pooling the aircraft and maintenance personnel. Unit commanders would continue to assign missions to their pilots and control them during the missions. The transportation officer would assign the pilot the proper aircraft and relieve the unit commanders of the responsibility for organizational maintenance of aircraft. He would provide the logistical support required to operate the common facilities, would constitute the agency to exercise centralized control when so directed by the division commander, and would provide for uniform and supervised technical training of aviation personnel.

There were transportation officers on the special staff at the corps and army levels where Army aviation functions had not been consolidated and specifically assigned to a single staff section. The study group therefore recommended that the staff function of Army aviation be assigned to the transportation officer of the corps and army, a move which would involve some readjustment in the personnel assigned to the staff sections.[6]

Organization in the Field Army

In another Army aviation study, this one conducted in August 1953, OCAFF concluded that the transportation staff section at army level should include qualified personnel to exercise technical staff supervision of Army aircraft maintenance and supply and an Army aviator to advise the Army transportation officer on employment of transportation helicopter units. The study group felt that the medical staff section at army level should include one Medical Service Corps major qualified as an Army aviator to advise the Army surgeon on aeromedical evacuation and employment of medical service helicopter ambulance units. Finally, the OCAFF group concluded that the signal section at army level should include one signal officer also qualified as an Army aviator to advise the Army Signal officer on aviation electronics, communications, and aerial photography.[7]

Corps Aviation Organization

In its August 1953 review, Army Field Forces concluded that Army aviation at the corps level needed reorganization. The proposed reorganized corps aviation section would have a lieutenant colonel as Army aviation officer, two assistant Army aviation officers, and one operations sergeant assigned to corps headquarters. The corps signal battalion would have six Army aviators, one aircraft maintenance supervisor, and seven enlisted maintenance personnel assigned. Nine Army aviators and eleven enlisted men would be assigned to the aviation section of the corps headquarters company. The Army aviation section of headquarters battery, corps artillery, would have three Army aviators and five enlisted men assigned.

The Army airfield operative unit, which would be assigned to corps, army, or other major Army airfield installation in a combat zone, overseas command, or the zone of the interior, had the mission to provide air traffic control, radio aids for air navigation, flight planning data, and coordination as required for day, night, and instrument flight operations service. This unit, composed of 7 operating teams, would consist of 11 officers, 1 warrant officer, and 71 enlisted men.[8]

Army Aviation within the Division

The staff organization on the division level for Army aviation had evolved from World War II when aircraft were authorized only in artillery battalions and in artillery group and division artillery headquarters batteries. During the war in Korea, this division organization, in the opinion of Army Field Forces, was weakened by lack of operational facilities, administrative support, adequate maintenance supervision, and operational supervision to prevent duplication of missions. This situation was unfortunate because the organization of Army aviation within the division provided the key to the organization of Army aviation within the Army. Thus, the same principle of assignment of aircraft to using units or centralization of aircraft in a TOE aviation unit should be applied to both divisional and nondivisional units. Since using units were organic to the division, establishment of a TOE aviation company would be a workable solution in the division. Many administrative, operational, and logistical problems would occur, however, if this solution were applied to nondivisional units.

OCAFF believed that any reorganization which would reduce the effectiveness of the Army aviation team, or introduce delaying administrative procedures in obtaining Army aviation support, would reduce the capability of Army aviation to perform its assigned function. The assignment of Army aviation to using units within the division was the best means of assuring unit commanders operational control of the required aviation. The Army Field Forces study group which reviewed organization on the division, corps, and army level in August 1953 concluded that Army aviation officers should be included in the G-3 section at division level in order to provide supervision over Army aviation activities and to provide a source of information concerning Army aviation for the commander and other staff sections. The implementation of these recommendations had to wait until the development of new division organizations in 1956.[9]

Tactical Aviation Units

The war in Korea proved to be a major factor in initiating the concept of close unit aviation medical support rather than relying solely on the Air Force's area medical coverage. In Korea, Army aviation units were located in forward areas with major tactical commands and were separated from Air Force facilities. These units thus were organized to provide medical evacuation support for the Army. The helicopter detachment—later designated the medical detachment, helicopter ambulance—operated early in the war, while the transportation helicopter company finally became operational in Korea toward the end of the war after the solution of a number of organizational problems. During 1954, OCAFF began planning for the formation of a light cargo fixed wing aircraft company and a division combat aviation company.

Medical Service Helicopter Ambulance Detachments

In June 1950, Army Field Forces recommended to the Department of the Army that a helicopter organization be provided for each division and field army for the purpose of providing aerial vehicles for medical evacuation. OCAFF suggested that in a division this organization be placed under the control of the division surgeon, be operated by Army medical personnel, and be considered in the same category as a Medical Department ambulance unit.

The evacuation of wounded personnel was handled early in the war in Korea by the Air Force as a secondary assignment, but the Army, which was quick to notice the advantages of helicopter evacuation, organized a helicopter detachment composed of four pilots and placed under the operational control of the Eighth Army surgeon.

By the early months of 1952, H-13 helicopters, with casualties carried on externally mounted pods, were being used in Korea for medical evacuation. Seventy H-25s were under procurement to be used for the same mission. Plans for equipping and training twelve helicopter ambulance detachments were dependent upon the availability of personnel spaces for instructors. Army air evacuation units, each of which consisted of five utility helicopters flown by medical service officers, were attached to medical units according to the dictates of terrain and battle conditions. Normally, one unit would be assigned to each division medical battalion. The units would be used for forward air evacuation of seriously wounded casualties to Mobile Army Surgical Hospitals located in the vicinity of the division medical battalion or to evacuation hospitals located farther to the rear. Casualties would be picked up where wounded, if possible, or picked up at the battalion aid station if the terrain or battle conditions prohibited normal evacuation.

In August 1952, after four helicopter detachments had arrived in Korea and operated with considerable success, the Department of the Army authorized the activation of helicopter ambulance units, redesignated medical detachments, helicopter ambulance. Requirements for medical service helicopter ambulance detachments recommended by the Materiel Requirements Review Panel on 31 July 1952 were approved by the Army Chief of Staff on 28 August 1952.

With the ever increasing tempo of the war, the Department of the Army granted authority to the Far East Command to organize six medical helicopter ambulance detachments, each having

a strength of seven officers and twenty-one enlisted men. These air evacuation units, equipped with H-13 helicopters and flown by other than medically trained pilots, were provided for the same purpose as the ambulance company and were attached to the division. These units were not restricted to the division area. By evacuating seriously wounded casualties directly to evacuation hospitals, the load on the Mobile Army Surgical Hospitals would be reduced, as would be the requirement for medical personnel and installations in the forward areas.[10]

In August 1953, OCAFF recommended the organization of helicopter ambulance detachments equipped with five utility helicopters and manned by seven pilots with appropriate supporting personnel and equipment. OCAFF also recommended a mobilization program for helicopter ambulance detachments on a ratio of one unit per two divisions and a plan for twelve detachments to support the fiscal year 1954 troop program. These twelve detachments, in addition to meeting operational requirements of the troop program, would provide training personnel for the Medical Field Service School, the schools of the arms and services, and for participation in field exercises in the continental United States.[11]

Light Cargo Fixed Wing Aircraft Company

Because of difficulties in the procurement of H-21 helicopters to equip transportation helicopter companies, OCAFF recommended to the Department of the Army in July 1954 that the deHavilland OTTER be adopted as substitute standard for the one and one-half-ton payload cargo helicopter. The OTTER was a fixed wing aircraft which compared favorably with the H-21 on an initial cost, spare parts cost, man-hour maintenance, payload, operational radius, POL consumption, and general performance basis. OCAFF recommended that approximately 100 OTTERS be procured for equipping one battalion of transportation cargo aircraft companies (light) in lieu of one programed battalion of transportation helicopter companies (light).

The Department of the Army on 30 September 1954 approved the early activation of three light cargo fixed wing aircraft companies and directed Army Field Forces to prepare a TOE for this organization. OCAFF established a tactical mission for fixed wing cargo aircraft of directly supporting forces in the combat zone by providing tactical air mobility and tactical aerial supply. The unit was assigned a TOE designator in the 1 series—aviation—instead of the 55 series—transportation—and was given the title, Army aviation transport company (airplane). The organization of this company was a significant step in the development of Army transport aviation and constituted the first recognition of the airplane as a major element of Army tactical transport aviation.[12]

Division Combat Aviation Company

As part of the planning for an experimental new type field army—known as the ATFA (Atomic Field Army)—OCAFF in 1954 began the development of a TOE for a division combat aviation company. The mission of the company was to support the division and its elements through day and night aerial observation, reconnaissance, and surveillance. The company also was to be capable of limited air movement of troops, supplies, and equipment. Other missions included battlefield illumination, aeromedical evacuation, wire laying, radio relay and

propaganda leaflet dissemination, artillery survey, courier and messenger service, and aerial transportation of commanders and staffs.

The division aviation officer would serve both as a commander and a staff officer. In addition to commanding the division combat aviation company, he would be a special staff officer and provide advice to the division commander and coordination with the division and subordinate unit staffs. Both the division aviation officer and aviation detachment commanders would be responsible for organization and operation of the air installation, reconnaissance, conduct of displacement, security, air defense, maintenance, discipline, and training. Staff responsibilities of the division aviation officer and aviation detachment commanders included advising the division commander and subordinate staffs concerning the planning, employment, and establishment of operational policies with respect to Army aviation.

The division combat aviation company was organized for operation in one or more combat elements in order to permit support of the division and its subordinate units from one or several locations as the tactical situation dictated. The organization was designed for maximum flexibility in order to meet changing tactical requirements. The company would be fully mobile and capable of supporting itself and detached combat elements with specialized aviation logistic functions. Its proposed TOE called for 143 officers and men.

The company headquarters was to be divided into four sections. The headquarters section would include the company commander (division aviation officer), who was to be concerned with overall planning, staff coordination, and command liaison activities; and the company executive (assistant division aviation officer) who was to have command supervision of the company.

The operations section, responsible for operational planning for the company and its elements, would consist of the operations officer who would be responsible for overall supervision of operational planning and aircraft utilization within the company; the assistant operations officer (combat) who would conduct the planning and supervise the operations of the combat platoon, as well as being the unit intelligence officer; the assistant operations officer (combat support) who would conduct the planning and supervise the operations of the combat support platoon; and the assistant operations officer (special missions) who would conduct the planning and supervise the operations of the special missions platoon and would be the unit communications officer. The communications section would contain the men and equipment necessary for installation and operation of wire, radio, and teletype communications for the company and for specialized aviation navigation devices. It also would perform second echelon maintenance on specialized aviation signal equipment. The technical inspection section would perform technical inspections of aircraft to determine serviceability and compliance with technical orders. The combat platoon of the division combat aviation company would consist of three identical flights, each consisting of four L-19 aircraft and one H-13 helicopter, with men and equipment for sustained operations when detached from the company.

The combat support platoon would consist of two flights. A light cargo fixed wing flight would have seven L-20 aircraft capable of aerial resupply by air landing, paradrop, and freefall

drop of three and one-half tons of equipment or supplies in one sortie, or movement of a platoon of combat troops. A light cargo helicopter flight would be equipped with seven H-19 helicopters and would be capable of resupply or movement of specialist teams and equipment as well as movement of a platoon of combat troops. Both flights would be capable of supplementing the special mission platoon in aeromedical evacuation and administrative aerial transportation.

The special mission platoon would consist of a light helicopter flight of twelve H-13 helicopters and a fixed wing flight of three L-19s. The helicopter flight would provide command liaison transportation for the division commander, assistant division commander, division artillery commander, and their staffs. Six of the helicopters would have the primary mission of providing battlefield aeromedical evacuation for the division and, in addition, would provide a means for engineer and other specialized reconnaissance, signal courier and message service, and artillery survey. The fixed wing flight would provide photo reconnaissance by hand held and mounted cameras for the division as a supplement to photo reconnaissance of the other services and that provided by the combat platoon elements when detached with combat commands. In addition, the fixed wing flight would provide combat reconnaissance specifically for the division staff.

The aviation service platoon would consist of three sections—the aviation maintenance section, the aviation supply section, and the refueling section. The aviation maintenance section would perform second echelon aircraft maintenance, including adjustments, minor repairs, and replacement of components, second echelon periodic inspections, and component calendar inspections of all aircraft assigned to the company. The aviation supply section would accomplish receipt, issue, storage, and turn-in of aircraft parts, components expendables, and accessories. The refueling section would draw, transport, store, and dispense the various aviation petroleum, oil, and lubricants required by the company.[13]

Cargo Helicopter Units

Concepts for the employment of cargo helicopter units were developed in an evolutionary fashion. Early Army planning had envisioned the assignment of helicopter companies directly to divisions and helicopter battalions to corps. In view of the high cost and scarcity of helicopters, the lack of experience regarding their employment, and their small unit capacity, it was determined subsequently to assign cargo helicopter units to field armies.

Early in August 1950, the Department of the Army requested that Army Field Forces submit recommendations regarding the organization, activation, and stationing for four of the five transportation helicopter companies which had been approved by the Joint Chiefs of Staff and the Secretary of Defense for fiscal year 1951. Approximately 500 spaces had been included in the augmented fiscal year 1951 Troop Basis which had been approved by the Joint Chiefs of Staff. In July 1950, the Department of the Army G-3 had approved the purchase of H-19 helicopters to equip the four companies. The success of the first four companies would be a controlling factor in the organization of the proposed fifth company. The Department of the

Army requested that OCAFF prepare a TOE and plan to arrange procurement by the end of fiscal year 1951 for the largest and best available aircraft to equip the fifth helicopter company.

Tentative doctrine, issued in December 1950, contemplated that the field armies would attach helicopter companies to corps, divisions, or smaller tactical units for specific operations. Used to augment existing transportation facilities, the companies would greatly enhance the speed and flexibility of ground combat units and make possible operations in areas where terrain and operating conditions rendered impracticable the use of other means of transportation.

On 24 October 1950, a tentative TOE had been issued for the transportation helicopter company. In the absence of a prototype helicopter suitable to the proposed mission, an organization was created to utilize a type of helicopter which the Army did not possess and could plan on procuring at some future date. Reflecting great credit on the foresight of the planning officers, this original TOE was virtually unchanged when the first transportation helicopter company was deployed to Korea late in 1952. The TOE called for 7 commissioned officers, 28 warrant officers, and 76 enlisted men. The company was composed of three helicopter platoons, with nine pilots per platoon. The company had twenty-one light cargo helicopters—H-19s or H-21s—and two H-13 utility helicopters. One utility helicopter was in the maintenance and service section and the other in the operations section. On 1 November 1950, the first helicopter company—the lst Transportation Helicopter Company, Army—was activated at Fort Sill.[14]

As a result of experience, the TOE was revised in August 1952. The new TOE called for a unit with 131 officers, warrant officers, and enlisted men and 21 cargo and 2 utility helicopters. Since helicopters were unusually complex and existing aircraft maintenance units were equipped largely to care for fixed wing aircraft, it proved necessary to provide for Transportation Corps field maintenance detachments for each cargo helicopter unit. Such detachments were activated beginning in late 1952, and two accompanied the cargo helicopter companies assigned to Korea.[15]

One of the most significant changes in the new TOE was the substitution of commissioned officer pilots for warrant officer pilots. The Transportation Corps strongly objected to this change. In order to provide for the recruitment and retention of cargo helicopter pilots, the Transportation Corps recommended that they be given the grade of warrant officer, and that an appropriate career field be established. It had been determined, however, that it was impracticable to set up a definite grade or rank for cargo helicopter pilots. In practice, the Transportation Corps used both officers and warrant officers as helicopter pilots, with the latter flying cargo helicopters as their primary duty. After studies had shown that the twelve battalion program would require 2,000 pilots, recommendations for the approval of the warrant officer grade for cargo helicopter pilots were renewed. These proposals were under consideration at the end of 1954.[16]

The next logical step was the development of an organization to control and administer cargo helicopter companies assigned to the field armies. Army Field Forces did not accept the Transportation Corps idea of establishing a fixed battalion organization with a predetermined number of assigned companies. Because of the limited availability of cargo helicopters and the

early stage of the testing of their use, it appeared that their employment in operations would be limited to separate company rather than battalion-size organizations for some time. Army Field Forces favored the establishment of an interim flexible battalion headquarters to direct a varying number of helicopter companies, each of which would be capable of separate operations if required in an active theater.

In line with this reasoning, an interim TOE was published in June 1953 providing for a battalion headquarters to direct two to four helicopter companies and accompanying field maintenance detachments. The detachments were subsequently reorganized as teams, and provision was made for grouping them in those cases where parent helicopter companies were brought under a battalion. Steps also were taken to augment helicopter companies with cellular helicopter teams in order to provide short haul liaison and cargo and personnel movements.

As of 30 June 1954, there were three cargo helicopter battalion headquarters, seven companies, and an equal number of field maintenance detachments in CONUS and overseas. This number was still considerably short of the goal of twelve battalion headquarters and thirty-six cargo helicopter companies approved by the Chief of Staff of the Army in August 1952. In large part, this was due to the need for scheduling activations in accordance with the availability of equipment. Another limiting factor was the shortage of pilots. Despite the efforts at intensified recruiting and publicity, the Army-wide shortage persisted.

Transportation Corps efforts in the development of doctrine and organization for Army aircraft maintenance units began with its assumption of the logistical support mission in August 1952. At that time, the only TOE aircraft maintenance units were field maintenance companies and repair teams brought into the Transportation Corps from Ordnance. No formal provision had been made for the administration and back-up support of such units at the field army level. In Korea, however, an improvised battalion organization had been developed, providing valuable guidance to the Transportation Corps in formulating concepts for the organization and utilization of maintenance units.

By the end of 1953, the Transportation Corps had developed a suitable organization and published TOE's for a battalion consisting of a headquarters detachment, three transportation Army aircraft maintenance (TAAM) companies, and a heavy maintenance and supply company. The headquarters would exercise command, staff planning, and administrative functions for the assigned units. The TAAM companies, reorganized with additional personnel and equipment and set up to handle rotary wing as well as fixed wing aircraft, would each handle the field maintenance and recovery of the aircraft of an army corps. They also would furnish supplies and spare parts for organizational and third echelon maintenance. When necessary, these units would be augmented by transportation Army aircraft repair (TAAR) teams. Back-up (fourth echelon) support for the TAAM companies and repair teams and the evacuation of salvageable and repairable materials to the Air Force depot maintenance facilities were to be accomplished by the heavy maintenance and supply company. As of 30 June 1954, there were 2 battalion headquarters, 7 TAAM companies, and 8 TAAR teams at various locations in CONUS and

overseas. Orders had been issued for the activation of the first heavy maintenance and supply company at Fort Eustis.[17]

Supply Support

Division of Responsibility

Early in 1950, supply and maintenance support for Army aircraft cut across service lines. The Air Force handled purchase and depot storage and issue of spare parts, tools, and other equipment for Army aircraft and performed the necessary depot maintenance. The Army determined requirements for those air items needed for operation and maintenance of aircraft, made funding arrangements, placed cross-service orders for their procurement, and performed storage, issue, and maintenance at organization and field levels. Responsibility for supply support of Army aircraft below the depot level and for coordination with the Air Force regarding depot support initially was assigned to the Ordnance Corps in June 1949. Following the assumption of the logistical support mission by the Transportation Corps in 1952, the Transportation Corps Army Aviation Field Service Office (TCAAFSO) became responsible for the procurement, supply control, and maintenance tasks.[18]

Expansion of Responsibility

With the outbreak of the war in Korea and the sudden expansion of requirements, it became necessary to provide for support of new helicopters coming into the system on the basis of limited experimental data. Limited production capacity, long lead time, and continuing design changes further complicated the supply support problem. The program tended to outgrow the personnel and facilities provided. The establishment of Transportation Corps liaison officers at Air Force depots resulted in expedited supply action on requisitions from the field and closer cognizance of Army stocks. Procedures were set up for joint Army-Air Force action in determining the range and quantity of spare parts and equipment required for concurrent delivery with the aircraft, and in developing supporting technical data. This provided a sound basis for the supply and maintenance support of aircraft during their initial phase of operation. Measures also were taken to step up procurement of air items required for the replenishment of stocks for aircraft already in the system.[19]

Shortage of Parts

A chronic shortage of spare parts for aircraft was precipitated by delays in providing sufficient funds for replenishment of parts, long production lead times, and difficulties inherent in an interservice system. While the spare parts shortage was world-wide, it was especially critical in the Far East, where aircraft were operated and maintained under extremely rugged conditions.

The spare parts problem in Korea was symptomatic of various difficulties encountered by the Transportation Corps in the supply support area. Initial purchases of spare parts for helicopters based on limited experience and a low estimate of flying time proved inadequate for expansion of helicopter employment following the outbreak of war. As a result of the buildup of parts required for support, the TCAAFSO had to recompute supply requirements and arrange for

additional procurement to compensate for previous deficiencies. The supply shortage was aggravated by delays in providing adequate funds for the follow-up procurement of spare parts. The $10,000,000 budgeted for fiscal year 1954 by the Ordnance Corps for replenishment spare parts was less than one-half the amount required to support the operating program in effect. Efforts to obtain additional funds were not immediately successful. Restrictions on the release of funds limited the amount that could be obligated quarterly during the first half of fiscal year 1954. The necessary funds finally were made available in December 1953, and purchasing action was instituted. Because of the long production lead time, however, it was anticipated that material relief of existing shortages would be delayed six to eighteen months.[20]

Incompatibility of Army and Air Force Supply Structures

Adequate logistical support of Army aircraft was further complicated by the incompatibility of the Army and Air Force supply structures. The Air Force's distribution and accounting systems were not responsive to Army requirements. The Air Force failed to supply the Army with timely and accurate information regarding the status of Army stocks in Air Force depots. This situation resulted in impairment of supply control, budgetary planning, and procurement action by the Transportation Corps and serious losses of Army equities due to absorption in Air Force stocks or diversions to Air Force use.

Late in 1953, agreement was reached regarding the refining and improvement of Air Force stock position reports. Provision was made for the advance notice to the Army of withdrawals from its equities and for improved reimbursement procedures. These measures did not materially improve the situation. Stock status data furnished by the Air Force continued to be untimely, incorrect, and lacking in uniformity. Army report requirements were basically incompatible with Air Force requirements and procedures. Remedial action proposed by the TCAAFSO included the placement of records of Army equities of secondary transportation air items at Air Force CONUS depots under TCAAFSO control; the designations of Army-Air Force audit teams to investigate and correct discrepancies relating to stock status of Army equities; and the conduct of negotiations for segregation of Army stocks in Air Force depots until such time as the Army assumed full responsibility for supply and maintenance of Army aviation.

By the end of fiscal year 1954, the Air Force depot support of the Army had not worked out. The problem appeared to be the inability of the Army to perform the supply control and budgeting functions with the record keeping and depot reporting system employed by the Air Force. A total of $3,000,000 in parts that had been diverted from Army equity were recovered in fiscal year 1954, alone. The Army would either have to assume control of stocks in Air Force depots or perform the depot function itself.[21]

Depot Transfer

By the latter part of fiscal year 1954, it was obvious that action should be taken to transfer depot responsibilities. Negotiations with the Air Force for the transfer of the responsibility had been undertaken by the Chief of Ordnance in 1951, and regulations published by the Army had announced its intent to take over the depot functions. The Materiel Requirements Review Panel

Study of July 1952 found the interservice system of depot support neither efficient nor economical and recommended the transfer of the responsibility. Upon the transfer of the logistical support mission to the Transportation Corps, however, it was decided to hold the project in abeyance until the latter had absorbed the functions assigned. The Chief of Transportation drew up new plans for the assumption by the Army of the depot support function, but these plans were deferred because of personnel and budgetary limitations.

Continuing problems with the depot support brought the matter up for reconsideration. By the latter part of fiscal year 1954, it was obvious at the highest Army levels that action should be taken to effect the transfer. The Air Force, which earlier had indicated some opposition, now appeared willing to go along with such a transfer of functions. At the close of the fiscal year, joint Army-Air Force negotiations looking toward assumption by the Army of the depot support responsibility were in progress.

In the interim, the Transportation Corps took various actions in an attempt to improve the situation. It attempted to eliminate backlogged orders, develop more accurate demand and usage data, and establish interim and long range programs to place support on a sound basis. The war initiated a program to facilitate supply and maintenance through the standardization of aircraft by geographical locations wherever possible. Steps were taken to develop flying hour programs that would assure effective utilization of assigned aircraft and permit more accurate planning for their supply and maintenance. Provision was made for development and periodic revision of flying hour quotas for various types of aircraft. The Transportation Corps proposed that army area commanders be responsible for monitoring aircraft utilization in their areas in order to assure that established quotas were met and to take corrective action in the event of deficient utilization. Consistent failure to obtain the minimum criteria for use of equipment would result in the redistribution or withdrawal of aircraft. These proposals were expected to provide a standard provisioning and budgeting guide for all Army technical services involved in supplying air items and for the Air Force in budgeting for and programing depot maintenance activities.[22]

Endnotes
Chapter V

1. AR No. 95-5, Flying, Army Aviation—General Provisions, 20 Mar 52.

2. (1) Functions Pertaining to Army Aviation, 27 Oct 52. (2) OCAFF Summary of Major Events and Problems, FY 1953, Part B. (3) OCAFF Summary of Major Events and Problems, FY 1954, Part B. (4) Ltr ATTNG-52 360(S), Acting CAFF to DA ACofS G-3, 29 Aug 53, Incl 3 to Incl 2, 10 Aug 53, subj: Review of Organization of Army Aviation.

3. AFF Bd No. 1, Fort Bragg, North Carolina, undated (c 1950).

4. Ltrs GNBA-8 400.34, AFF Bd No. 1 to OCAFF, 14 Nov 50, subj: Tables of Equipment Governing Army Aircraft, with 1st Ind; OCAFF to Pres AFF Bd No. 1, 21 Nov 50, same subj.

5. Report of Study of Project AC1250, AFF Bd No. 1, 14 Mar 51.

6. (1) Ltr G-3 360 (23 Dec 52), DA ACofS G-3 to CAFF, 23 Dec 52, subj: Organization for Army Aviation. (2) Staff Study, Organization for Army Aviation, undated.

7. (1) OCAFF Staff Study, 10 Aug 53, subj: Organization for Army Aviation within Division, Corps, and Armies. (2) Revision of OCAFF Staff Study, 15 Sep 53, same subj., Annex J, Appendixes I, II, and III.

8. OCAFF Staff Study, 15 Sep 53, Annex II, Appendixes I, II, and III.

9. (1) OCAFF Staff Study, 15 Sep 53, Annex II, Appendices I, II, III. (2) Interview, Hist Ofc with Col W. R. Mathews, ODCSOPS Avn Div, 2 Jun 71.

10. Msg AGAO-I-M-332 (20 Nov 52), DA to CINCFE, 26 Nov 52, subj: Activation of Certain Medical Detachments.

11. (1) Tierney and Montgomery, *The Army Aviation Story*, p. 189. (2) Fact Sheet, OCAFF G-3 Section, 10 Aug 53, subj: Requirements for Medical Service Helicopter Ambulance Detachments.

12. (1) OCAFF Summary of Major Events and Problems, FY 1955, Vol. I, Part B, pp. 29-30. (2) Semiannual Hist Rept, G-3 Section Doctrine and Requirements Div, 1 Jul - 31 Dec 54, p. 8. (3) Ltr G-3 DA 451 (21 Sep 54), DA to OCAFF, 20 Sep 54, subj: Preparation of TOE for Light Cargo Fixed Wing Company.

13. (1) Ltr 322 AKPSIAS-CS, Army Aviation School to OCAFF, 28 Jun 54, subj: Deviation for Guidance for Division Combat Aviation Company, ATFA-1, w/1st Ind, OCAFF to Aviation School, 8 Jul 54, and w/incl, Division Combat Aviation Company, ATFA-1.

14. In 1951, the 1st Transportation Helicopter Company was redesignated as the 6th Transportation Helicopter Company.

15. (1) Bykofsky, pp. 81-83. (2) Annual History, OCAFF, 1950, Vol. II, Chap. 16, pp. 5-6.

16. Bykofsky, pp. 86-87.

17. (1) Bykofsky, pp. 83-86, 87-88. (2) OCAFF Staff Study, 10 Aug 53, Appendix III to Annex J to Incl 2.

18. Bykofsky, pp. 60-61.

19. Ibid., pp. 61-63.

20. Ibid., pp. 63-66.

21. Ibid., pp. 66-68.

22. Ibid., pp. 68-71.